PATENTS 174/079Re

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE REISSUE APPLICATION

Application for

Reissue of Patent No.: 5,970,255

Issued

October 19, 1999

Patentee/

Reissue Applicants :

Nghia Tran, Ying Xuan Li, Janusz

Balicki, and John Costello

For

SYSTEM FOR COUPLING PROGRAMMABLE LOGIC DEVICE TO EXTERNAL CIRCUITRY WHICH SELECTS A LOGIC STANDARD AND USES BUFFERS TO MODIFY OUTPUT AND

INPUT SIGNALS ACCORDINGLY

Assignee

: Altera Corporation

Box REISSUE

Hon. Commissioner for Patents

Washington, D.C. 20231

October 19, 2001 New York, NY 10020

### INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97, applicants wish to call the attention of the Examiner to the following references:

> Re 34,808 Hsieh U.S. patents

4,032,800 Druscher et al. 4,472,647 allgood et al.

4,527,079 Thompson 4,625,129 Ueno 4,783,607 Hsieh

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4,791,312 Weick
                    4,797,583 Ueno et al
                    4,820,937 Hsieh
                    4,879,481 Pathak et al.
                    4,933,577 Wong et al
                    4,970,410 Matsushita et al.
                    4,975,602 Nhu
                    4,987,319 Kawana
                    4,994,691 Naghshineh
                    4,999,529 Morgan, Jr. et al.
                    5,023,488 Gunning
                    5,028,821 Kaplinsky
                    5,034,634 Yamamoto
                    5,132,573 Tsuru et al.
                    5,151,619 Austin et al.
                    5,235,219 Cooperman et al.
                    5,282,271 Hsieh et al.
                    5,300,835 Assar et al.
                    5,311,080 Britton et al.
                    5,317,210 Patel
                    5,332,935 Shyu
                    5,374,858 Elmer
                    5,428,305 Wong et al.
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                     5,534,794 Moreland
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                     0 426 283 B1
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                     01-274512
                     02-013124
                     02-161820
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B.A. Chappell, et al., "Fast CMOS ECL Receivers with 100mV Worst-Case Sensitivity" <u>IEEE Journal of Solid-State Circuits</u>, Vol. 23, No. 1, February 1988, pp. 59-66.

F. Claude, "Cross-boundry PLDs", <u>Semiconductor Currents</u>, June 1991, pp. 9-10.

- Carlo Guardiani, et al., "Applying a submicron mismatch model to practical IC design" <u>IEEE 1994 Custom Integrated</u> <u>Circuits Conference</u>, 1994, pp. 297-300.
- Bill Gunning, et al., "A CMOS Low-Voltage-Swing Transmission-Line Transceiver" <u>IEEE International Solid-State</u> <u>Circuits Conference</u>, 1992, pp. 58-59.

Andrew Haines, "Field-programmable gate array with non-volatile configuration", <u>Microprocessors and Microsystems</u>, Vol. 13, No. 5, June 1989, pp. 305-312

- H.I. Hanafi, et al., "Design and Characterization of CMOS Off-Chip Driver/Receiver with Reduced Power-Supply Disturbance", IEEE Journal of Solid-State Circuits, Vol. 27, No. 5, May 1992, pp. 783-785.
- "IEEE 1194.1 BTL-Enabling Technology for High Speed Bus Applications", June 1992, pp. 1-5.
- K. Knack, "Debunking High-Speed PCB Design Myths", ASIC & EDA, July 1993, pp. 12-26.
- M.J.M. Pelgrom, et al., "A 3/5 V Compatible I/O Buffer", <u>IEEE Journal of Solid-State Circuits</u>, Vol. 30, No.7, July 1995, pp. 823-825.
- M.J.M. Pelgrom, et al., "Matching Properties of MOS Transistor", <u>IEEE Journal of Solid-State Circuits</u>, Vol. 24, No.5, October 1989, pp. 1433-1440.
- B. Prince, et al., "ICS going on a 3-V diet", <u>IEEE</u> <u>Spectrum</u>, May 1992, pp. 23-25.
- A.L. Roberts, "Session XIX: High Density SRAMs", <u>IEEE</u> <u>International Solid-State Circuits Conference</u>, February 1987, pp. 252-254.
- R. Senthinathan, "Application Specific CMOs Output Driver Circuit Design Techniques to Reduce Simultaneous Switching Noise", <u>IEEE Journal of Solid-State Circuits</u> Conference, Vol. 28, No. 12, December 1993, pp. 1383-1388.
- R. Senthinathan, "Simultaneious Switching Ground Noise Calculation for Packaged CMOs Devices, <u>IEEE Journal of Solid-State Circuits Conference</u>, Vol. 26, No. 11, November 1991, pp. 1724-1728.

M. Ueda, "A 3.3V ASIC for Mixed Voltage Applications with Shut Down Mode", <u>IEEE Custom Integrated Circuits</u> <u>Conference</u>, 1993, pp. 25.5.1 - 25.5.4.

- S. H. Voldman, "ESD Protections in a Mixed Voltage Interface and Multi-Rail Disconnected Power Grid Environment in 0.50 and 0.25 Channel Length CMOS Technologies", <u>EOS/ESD Symposium</u>, pp. 3.4.1 3.4.10, 1994.
- T.T. Vu., "A Gallium Arsenide SDFL Gate Array with Onchip RAM", <u>IEEE Journal of Solid-State Circuits</u>, Vol. SC-19, No. 1, February 1984, pp. 10-22.
- J. Williams, "Mixing 3-V and 5-V Ics", <u>IEEE Spectrum</u>, March 1993, pp.40-42.

These references are also listed on the attached Form PTO-1449, and copies of them are enclosed.

Consideration of the foregoing in relation to this patent application is respectfully requested.

Respectfully submitted,

Michael E. Shanahan Registration No. 43,914 Attorney for Applicants

and Assihnee

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**FORM PTO-1449** 

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 174/079Re

APPLICATION NO.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

APPLICANT Nghia Tran, et al.

FILING DATE October 19, 2001 GROUP

	(	U.S. PATENT DOCUMENTS					
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS 326 307	SUBCLASS	FILING DATE IF APPROPRIATE	
	Re. 34,808	12/20/94	Hsieh		71		
L	4,032,800	06/28/77	Dröscher et al.		296		
des.	4,472,647	09/18/84	Allgood et al.	307	475		
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	4,625,129	11/25/86	Ueno	307	446		
	4,783,607	11/08/88	Hsieh	307	475		
UT	4,791,312	12/13/88	Weick	307 264			
Berry Branch	4,797,583	01/10/89	Ueno et al.	307	475		
<b>3</b>	4,820,937	04/11/89	Hsieh	307	475		
	4,879,481	11/07/89	Pathak et al.	307	465		
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N. C.	4,970,410	11/13/90	Matsushita et al.	307	303		
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121	4,987,319	01/22/91	Kawana	307	465		
	4,994,691	02/19/91	Naghshineh	307	475		
*	4,999,529	03/12/91	Morgan, Jr. et al.	307	475		
	5,023,488	06/11/91	Gunning	307	475		
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	5,311,080	05/10/94	Britton et al.	307	465		
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## **EXAMINER**

FORM PTO-1449  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE						ATTY. DOC 174/079Re	APPLICATION NO.					
	INFORMATIO STATEMENT	APPLICANT Nghia Tran, et al.										
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EXAMINER INITIAL	DOCUMENT DATE  5,332,935 07/26/94				NAME	CLASS SUBCLASS		FILING DATE IF APPROPRIATE				
			94	4 Shyu		307	475					
	5,374,858	12/20/94		Elmer		327	333					
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1)	5,534,794					326	63					
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	F. Claude, "Cros						1991, pp. 9-10.					

# **EXAMINER**

# DATE CONSIDERED

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER** INITIAL Carlo Guardiani, et al., "Applying a submicron mismatch model to practical IC design" IEEE 1994 Custom Integrated Circuits Conference, 1994, pp. 297-300. Bill Gunning, et al., "A CMOS Low-Voltage-Swing Transmission-Line Transceiver" IEEE International Solid-State Circuits Conference, 1992, pp. 58-59. The state of the s Andrew Haines, "Field-programmable gate array with non-volatile configuration", Microprocessors and Microsystems, Vol. 13, No. 5, June 1989, pp. 305-312. H.I. Hanafi, et al., "Design and Characterization of CMOS Off-Chip Driver/Receiver with Reduced Power-Supply Disturbance", <u>IEEE Journal of Solid-State Circuits</u>, Vol. 27, No. 5, May 1992, pp. 783-"IEEE 1194.1 BTL-Enabling Technology for High Speed Bus Applications", June 1992, pp. 1-5. 海北 K. Knack, "Debunking High-Speed PCB Design Myths", ASIC & EDA, July 1993, pp. 12-26. M.J.M. Pelgrom, et al., "A 3/5 V Compatible I/O Buffer", IEEE Journal of Solid-State Circuits, Vol. 30, 和林 No.7, July 1995, pp. 823-825. M.J.M. Pelgrom, et al., "Matching Properties of MOS Transistor", IEEE Journal of Solid-State Circuits, 1 Vol. 24, No.5, October 1989, pp. 1433-1440. B. Prince, et al., "ICS going on a 3-V diet", IEEE Spectrum, May 1992, pp. 23-25. A.L. Roberts, "Session XIX: High Density SRAMs", IEEE International Solid-State Circuits Conference, February 1987, pp. 252-254. R. Senthinathan, "Application Specific CMOs Output Driver Circuit Design Techniques to Reduce Simultaneous Switching Noise", IEEE Journal of Solid-State Circuits Conference, Vol. 28, No. 12, December 1993, pp. 1383-1388. R. Senthinathan, "Simultaneious Switching Ground Noise Calculation for Packaged CMOs Devices, IEEE Journal of Solid-State Circuits Conference, Vol. 26, No. 11, November 1991, pp. 1724-1728. M. Ueda, "A 3.3V ASIC for Mixed Voltage Applications with Shut Down Mode", IEEE Custom Integrated Circuits Conference, 1993, pp. 25.5.1 - 25.5.4. S. H. Voldman, "ESD Protections in a Mixed Voltage Interface and Multi-Rail Disconnected Power Grid Environment in 0.50 and 0.25 Channel Length CMOS Technologies", EOS/ESD Symposium, pp. 3.4.1 -3.4.10, 1994. T.T. Vu., "A Gallium Arsenide SDFL Gate Array with On-chip RAM", IEEE Journal of Solid-State Circuits, Vol. SC-19, No. 1, February 1984, pp. 10-22. J. Williams, "Mixing 3-V and 5-V Ics", IEEE Spectrum, March 1993, pp.40-42.

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